TAX DISCRIMINATION IN THE PAPER AND PULP INDUSTRY.

THE fact of the existence of inequalities in taxation in the United States has been the subject of perennial illustration. To bring forward, therefore, any further instances of what is so commonly taken for granted and so frequently regarded as incurable, may be looked upon merely as a waste of energy. But surely, unless failure in the task of bringing about some measure of reform is to be regarded as inevitable (and the possibility of improvement in methods of business taxation, by devising arrangements distinct in character from those applied to the taxation of individuals, is surely not a hopeless one), the constant accumulating of facts corroborative of existing shortcomings must be regarded as an essential feature of the task. In line with this point of view there are here tabulated certain figures which illustrate the extent to which tax discriminations exist in the paper and pulp industry. And this is followed by an attempt at interpretation of these figures in the light of prevailing tax practices. The figures have been compiled from the various United States Census Reports on Manufactures, those eight States having been chosen which lead in paper and pulp production.

This table presents two related sets of facts that call for explanation and interpretation. The phase of the inquiry based on the first of these groups of facts has to do with the contemporaneous inequalities in exaction between States, the other with inequalities in the same State between separate periods, and with the closely related comparison between States as to tendencies in this respect.

A glance at Table I. gives sufficient evidence of the nature of the evidence to be interpreted. Whether viewed from the standpoint of capital investment, of value of product, or of business profits, the variations in tax exaction here

TABLE I.

State.		Amount of State and Local Tax Payments.[1]	Capital.[2]	Ratio of Taxes to Capital. Per cent.	Value of Product.	Ratio of Taxes to Value of Product. Per cent.	Net Income.[3]	Ratio of Taxes to Net Income. Per cent.
United States . . .	1900	$977,877	$167,507,713	.58	$127,326,162	.77	$22,242,360	4.39
	1905	1,383,981	277,444,471	.49	188,715,189	.73	24,291,407	5.69
New York .	1900	181,954	37,349,390	.49	26,715,628	.68	4,976,933	3 66
	1905	241,462	56,461,739	.43	37,750,605	.65	4,803,654	5.02
Massachusetts . .	1900	262,835	26,692,922	.98	22,141,461	1.19	3,992,437	6 59
	1905	321,598	41,073,769	.78	32,012,247	1.04	4,653,967	6.99
Maine . .	1900	122,071	17,473,160	.69	13,223,275	.92	2,223,114	5.49
	1905	190,594	41,273,915	.46	22,951,124	.83	2,258,288	8 44
Wisconsin . . .	1900	97,530	16,580,140	.59	10,895,576	.89	1,658,829	5.88
	1905	194,267	24,408,918	.79	17,844,174	1.89	2,243,182	8.66
Pennsylvania . .	1900	64,069	16,424,107	.39	12,267,900	.52	2,492,727	2.59
	1905	49,973	21,468,927	.23	15,411,032	.32	2,058,726	2.43
Ohio	1900	40,881	7,872,913	.52	6,543,513	.62	940,412	4.35
	1905	55,970	14,433,114	.39	10,961,527	.51	1,656,573	3 38
New Hampshire .	1900	50,995	8,163,081	62	7,244,733	.70	1,601,523	3.18
	1905	60,521	14,041,014	.43	8,930,291	.68	1,488,155	4.07
Michigan	1900	24,957	4,505,741	.55	4,217,869	.59	426,988	5 85
	1905	70,228	8,397,576	.84	7,340,631	.96	806,875	8.70

[1] In the Census Reports this item is entitled "Taxes, not including internal revenue." According to the Chief Statistician for Manufactures, it consists "almost entirely of State and local taxes"

[2] Capital represents value of land, buildings, machinery, tools, implements, cash, and sundries.

[3] Net income represents aggregate value of products, less the following items: total wages, total salaries, cost of materials, rent of works and offices, insurance, interest, contract work, payments, and sundry expenses These deductions may not be sufficient (e g., in the true interest item) to make the result a strictly accurate one, but, on the assumption that there is substantial uniformity from State to State in whatever shortcomings there may be, the result from a comparative standpoint is not far from satisfactory.

indicated are clearly wide enough to arrest attention and to give significance to several questions. Most important among these are the following: (1) To what extent are variations due to divergent tax methods, and to what extent to varying degrees of looseness in administration? (2) What, if any, has been the influence of these variations on the relative development of the industry in different States? (3) How are we to account for the general failure of tax exactions to keep pace with growth of property values and increase in value of output, at the same time that such exactions in general increased more rapidly than did net income?

To be sure, could answers of a positive nature be given to any of these questions, they would have little general value. The paper and pulp industry is relatively of too little importance to give such answers more than the quality of suggestiveness. Answers of a negative character, however, may have somewhat greater value in this regard. And such, tho qualified by varying conditions, we may expect to find.

First of all, the tax methods of the various States involved must be outlined. With the exception of Massachusetts and Pennsylvania the paper and pulp industry is taxed in all of these States under general property tax arrangements, in the same manner and by the same machinery as private individuals are taxed.[1] Administrative details vary considerably, from the comparatively simple devices for assessment, review, and equalization that prevail in Maine to the more complicated arrangements now in use in Wisconsin[2] and in Michigan. Pennsylvania practice is unique. In that State manufacturing companies, with few exceptions, are exempted from all State taxes. They are subject merely to local taxes on real estate, which reach only their

[1] In New York manufacturing companies are specifically exempted from the operation of the general corporation tax law of that State

[2] See Report of Wisconsin Tax Commission, 1907, pp 148 *et seq* The activity of this Commission has had much to do with the increasing efficiency of administration in Wisconsin. In 1905 a new law, elaborating details of administration, went into effect A similar law was passed somewhat later in Michigan.

lands, buildings, and such machinery as is attached or fixed to their buildings.[1] In Massachusetts paper and pulp companies, as other manufacturing companies, are taxed under a combination of devices. Domestic corporations are locally taxed on their real estate and machinery under the general property tax, and the remainder of the property is reached by a State tax on the corporation. This remainder, the so-called corporate excess, is determined by ascertaining the actual value of outstanding shares, and deducting (1) the value of real estate and machinery locally taxed, (2) the value of property situated in another State or country and taxable there, and (3) the value of securities which, if owned by an individual residing in Massachusetts, would not, for special reasons, be liable to taxation. This last arrangement makes feasible the formation of holding companies. Foreign corporations pay local taxes on real estate, machinery, and merchandise, besides a State excise tax. Manufacturing concerns, not incorporated,[2] are locally taxed, as are corporations, on their real estate and machinery, but in addition are subject to a tax upon their entire stocks of merchandise, with no deductions for outstanding liabilities such as are made in the case of domestic corporations in assessing corporate excess.[3]

(1) It is manifestly impossible to trace any close connection between the amount of tax exaction in each State and the method of taxation in vogue. Referring merely to the six States in which the same system, the general property tax, is in use, on whatever basis the test be applied, significant variations in the proportion of taxes paid are to be noted. Some other cause of variation than divergences between States in the general nature of tax methods employed must, therefore, be found in these six instances.

[1] *Patterson* v. *Delaware County*, 70 Pa. 381. For further treatment see the author's "Taxation of Personal Property in Pennsylvania," in this *Journal*, November, 1906, p. 61.

[2] See page 640 for an illustration of the possible effect of this provision.

[3] For a complete treatment of this subject see Bullock, "Taxation of Corporations in Massachusetts," in this *Journal*, February, 1907.

Turning to the other two cases, the low ratio in Pennsylvania is, of course, easily accounted for in chief part by the method there employed; and in Massachusetts the more exacting provisions of that State's variegated system probably account in good measure for the large proportionate exaction there. But leaving out of account the case of Pennsylvania, which is too exceptional and temporary to be allowed to influence any general conclusion along this line, and for the present neglecting the case of Massachusetts, which does lend some color to the view that the general method or system of taxation may have an appreciable effect on the comparative volume of tax payments, the divergences in the cases of the other six States, following similar general schemes of taxation, would lead us to look for other causes in other directions. These are, of course, the varying efficiency of administration in the different States, due in part to the character of administrative details prescribed by law and in part to the personal factor in administration, and the varying tax rates of the different States, due to correspondingly varying revenue needs in those States. It is possible to draw from the figures little more than inference as to the presence or effect of these causes, for their influence, in lack of requisite detailed information, is not separable. However, with the exception of Michigan and Wisconsin, States in which there have been during recent years symptoms of increased efficiency in tax administration (an increased efficiency which shows itself in the rise in the tax ratio of those States, as indicated in the tables between 1900 and 1905), there is little evidence, and therefore little reason, to question the generalization that in the other four States there was such substantial uniformity of administrative inefficiency as usually accompanies the taxation of general property. Granting, therefore, substantial uniformity in ineffectiveness of administration in these four cases, variations must be accounted for largely on the basis of varying local revenue needs. Where density of population and of investment is low, the necessary minimum of expenditure for public equipment and for ad-

ministration is likely to lead to a relatively high tax rate. Conditions of this character are almost invariably to be found in regions where wood pulp and wood-pulp paper are made, so that a higher tax ratio would be expected in the cases of Maine, New Hampshire, and New York (three of the four States in question), where this is the predominant industry, than in Ohio, where straw and other papers are produced in more densely developed industrial areas. The figures tend to confirm this view. At the same time such a conclusion must not be insisted upon in view of other possible influences, as, for instance, the tendency in New England towns to saddle on the community expenses for improvements which in other sections of the country would probably be borne by property owners thru some more direct medium than that of taxation. Our answer to the first question, then, must be a very unsatisfactory one. Indeed, it little more than illustrates the difficulties incident to an investigation of this nature. The most that can be said is that the character of general tax methods employed probably has some influence in producing variations in tax exaction (compare Massachusetts with the other States), that varying efficiency of administration further magnifies this result, and that local financial needs, varying in no exact proportion with local differences in population and wealth, still further complicates an already complex situation.

(2) As regards the answer to the second question, the varying burden of taxes in the different States has probably had little, if any, influence on the relative development of the paper industry of those States. Tho variations in tax payment, such as the figures reveal, constitute real discriminating deductions from profits, other conditions of relative advantage and disadvantage, based largely on differing natural conditions of production, are of so much more vital importance as to make tax items comparatively insignificant. Pennsylvania may be an exception in this respect. There the prominent position of the State as a producer of paper, considered in connection with the miscellaneous rather than

special character of the business, and also in connection with the lack of especially favoring local conditions (excepting, perhaps, an excellent labor supply) creates a presumption in favor of the view that the low tax expenses have contributed something to the upbuilding of the paper industry in that State.[1] Proximity to supplies of raw material or the presence of water power, or both, is the primary cause of the pre-eminence of the other States as paper producers. Maine, Michigan, New York, and Wisconsin produce the bulk of the wood-pulp papers manufactured in the United States. Nearness to supplies of spruce and poplar is an important factor in all of these cases, and abundance of cheap water power in most of them; altho in Michigan a surprisingly large proportion of the raw materials used, according to the Census of 1900,[2] consisted of old or waste paper. The abundant water power of the Connecticut Valley accounts in large measure for the localization of the manufacture of the finer rag papers in Massachusetts. Excepting Pennsylvania, paper production in Ohio is more nearly miscellaneous (and the percentage of taxes lower, it will be noted) than in any of the other States above men-

[1] On the face of things at least, it would seem that this tax exemption policy should by this time have contributed its expected share to the expansion and diversification of manufacturing industry in Pennsylvania Pennsylvania's position of prominence as a manufacturing State surely points in that direction State officials have not infrequently on this ground recommended the removal of the exemption, and bills to that effect have from time to time been introduced into the State legislature During the recent legislative session the so-called Endsley Bill was introduced, and was strongly supported It provided for a graduated tax of one mill on the dollar for concerns with capital up to $500,000, three mills up to $1,000,000, and five mills when the capital stock amounted to more than $1,000,000. In support of the bill Mr Endsley and others urged that the policy of exemption since 1885 had cost the State $50,000,000, and was now resulting in an annual loss of $5,000,000 But the lobby of the manufacturing interests was so strong that the bill was killed in the Lower House, as were several other bills increasing corporation taxes Those who led the fight against the Endsley Bill urged the continued necessity for encouraging the development of the manufacturing industries of the State Said Mr Blaksle: "I have in mind a number of lines of industry recently introduced, and beyond doubt others are to come This provision has helped to build up the magnificent prosperity of the Commonwealth, but we want more of it Just as past legislatures have opened the door for development along this all-important line, so this legislature may well keep open that door "

[2] $700,270 was expended for old and waste paper, compared with $893,210 for wood and prepared wood fibre, and $137,772 for rags. Twelfth Census of the United States, vol. ix. pp. 1030, 1031.

tioned; but even here proximity to supplies of an important raw material contributes something to the position which Ohio shares with Indiana and Illinois as consumers of four-fifths of the straw used in paper-making in the United States. Pennsylvania, too, has a specialty, building and roofing paper,[1] but in that State, as we have already indicated, paper manufacture is more varied than in any of the others; and it is not improbable, as was said above, that in this one instance, at least, low taxation has contributed something to the State's position in paper production.

(3) In connection with our last question it is to be noted from Table I. that (with the exception of Michigan and Wisconsin) the ratio of taxes to value of property and to value of product decreased between 1900 and 1905, at the same time that the ratio of taxes to net income (excepting the cases of Ohio and Pennsylvania) showed a substantial increase. The following table illustrates these tendencies in terms of percentage of increase in each of the elements under consideration between the years 1900 and 1905. First, with reference to the failure of taxes to keep pace with increasing invest-

TABLE II.

PERCENTAGE OF INCREASE BETWEEN 1900 AND 1905 IN

STATE	Capital	Value of Product	Cost of Materials [2]	Net Income	Taxes.
United States .	65	48	57	9.2	42
New York . . .	51	42	57	3.5[3]	33
Massachusetts . .	54	45	50	16 6	26
Maine	136	73	94	2.5	56
Wisconsin .	48	70	59	35.3	100
Pennsylvania .	31	26	35	17.4[3]	23[3]
Ohio	84	68	65	76 2	37
New Hampshire .	73	23	36	7.0[3]	20
Michigan	84	73	70	89.2	191

[1] According to the Census of 1900, vol. ix. p 1022, Pennsylvania made nearly one-half of all the building and roofing paper made in the United States ($1,313,436 out of $3,025,967)

[2] "Cost of Materials" covers cost of raw materials and mill supplies, as well as expenditures for freight, fuel, rent of power and heat.

[3] Decrease.

ment values. The general tax methods employed in all of the States during this period remained unchanged, so that the explanation of the facts must be sought for either in administrative shortcomings or in changes of tax rate, or in both. In lack of specific detailed information it is impossible to make any accurate generalization with reference to the rates of the multitude of tax exactions that go to make up the totals of taxes paid by paper manufacturing companies in the different States; but it is unquestionably safe to assume that such change as there has been in average rates is small at most, and that even this small measure has been in the direction of increase rather than of diminution. Indeed, for present purposes this factor in the situation may safely be neglected. Turning then to the other factor, it is to be observed that the period from 1900 to 1905 was a period of very rapid increase of investment in the paper manufacturing industry, increase in actual property values rising as high as 136 per cent. in the case of Maine and averaging 65 per cent. for the United States as a whole. In view of this very rapid growth in real investment values it is easy to account for the diminishing ratio of taxes to capital, on the usual ground of the failure of property taxes, as commonly administered, to keep pace with rapidly advancing property values. The exceptional experiences of Michigan and Wisconsin in this regard are, doubtless, to be ascribed to the toning up of tax administration that those States have undergone in recent years. In the other States the experience has been the usual and expected one. To be sure, additional contributory local causes have, undoubtedly, been at work. In Massachusetts, for instance, the falling off may in slight measure be accounted for by changes in the character of business organization in the paper industry between 1900 and 1905. In 1900 twenty-six of the ninety-three concerns engaged in paper manufacturing were unincorporated.[1] In 1905 but seventeen of the eighty-seven separate concerns then in the business were unincorporated.[2] It is probably

[1] Twelfth Census of the United States, vol ix p 1029.

[2] United States Census of Manufactures, 1905, Bulletin 53, p 29

the case that under present methods of taxation in Massachusetts (especially in the taxation of merchandise) incorporated concerns are in a position of advantage over unincorporated enterprises,[1] so that under the movement toward incorporation, which has made progress during this period, some merchandise that might have been taxed under the earlier conditions may now escape taxation. Minor influences may likewise contribute to the general result in other States; but the general cause above ascribed is probably the chief one.

As regards the tendency manifested in the tables for taxes to increase during this five-year period more rapidly than net income, a partial explanation can perhaps be given. It will be noticed, in the first place, that with the exception of Wisconsin the rate of increase in value of product was lower in every instance than the increase in property values. This, in all probability, betokens one of two things: either that investment in the paper industry in response to the growing demand for paper products has proceeded more rapidly than the immediate demand for paper has warranted (*i.e.*, that large investments have been made to meet prospective rather than immediate demands) or that in 1905 there were more additions to plant under process of completion than in 1900, such additions adding much to investment values, but nothing to earnings. It is probable that both of these influences were operative, so that the amounts paid out in taxes, which, as we have seen, are for the most part based on property values, would very naturally increase more rapidly than earnings. And under such circumstances it might be urged, by the way, that the failure of the property tax to keep pace with increasing property values is after all not so objectionable as at first sight, from a public revenue standpoint, it might seem to be.

A further factor in retarding growth of net earnings relatively to increase in property values and in value of

[1] See Bullock, "Taxation of Corporations in Massachusetts," in this *Journal*, February, 1907, p 211 *et seq*

product was the high rate of increase in cost of materials. With the exception of Wisconsin, Ohio, and Michigan, it will be noticed that cost of materials advanced during the five-year period more rapidly than value of product (in the latter two of these instances, however, it will be seen that the more rapid increase in the latter item was relatively slight). On the surface of things it would seem as if competition in the paper industry (and the testimony of a number of manufacturers confirms this view) has been strong enough to prevent a rise in the prices of finished products at all commensurate with the rising expenses for materials. Labor costs, too, have arisen since 1900, the increase in this item in the cases of Wisconsin and Michigan approximating 90 per cent , but this factor is of minor importance compared with the one last mentioned. Michigan is the only case in which net earnings grew faster than either capital or value of product. The slightly lower relative cost of materials must account for this; for the advance in labor cost and in miscellaneous expenses was more rapid than the advance in value of product. In the case of Ohio both labor cost and cost of materials advanced less rapidly than value of product, this accounting in the main for the large increase in net income in that State. The case of Pennsylvania is peculiar. An increase of 35 per cent. in cost of materials and of 45 per cent. in labor cost, in the face of a 25 per cent. increase in value of products, goes far toward explaining the absolute decrease in net income. But it is difficult to see how there could be a more than corresponding diminution in the relative amount of taxes paid, in the face of a rise in actual property values of 31 per cent. Inasmuch as taxes are local only and are based merely on realty values, the first suggestion looking toward an explanation of this peculiar circumstance would naturally be that the larger portion of this increase was in untaxable personalty rather than in taxable realty items. But an examination of the census returns will not support this theory. From 1900 to 1905 value of lands and buildings increased from $3,678,740 to $5,626,307, or 41 per cent., compared

with an increase in value of machinery,[1] tools, implements, cash, and sundries of from $12,745,367 to $15,842,620, or only 24 per cent. Other available facts do little, if anything, to explain the discrepancy. There has been no lowering of local tax rates in Pennsylvania that would account for it. In view of the fact that the number of paper and pulp manufacturing establishments[2] in Pennsylvania was fewer by eight in 1905 than in 1900, temporary tax exemptions in particular localities, offered with a view to encouraging the growth of local industries, cannot account for it. And in lack of more special information it would seem hardly fair to ascribe the falling off to exceptional deficiencies in administration; for, taking the manufacturing establishments of the State as a whole, taxes increased 21.2 per cent. between 1900 and 1905, compared with an increase in capital of 37.7 per cent. and in value of product of 18.5 per cent. So that this mystery must remain unsolved.

Such are the partial, and, therefore, measurably unsatisfactory, answers that can be given to the three questions which we addressed ourselves at the opening of this attempt at statistical interpretation. The specific results in themselves, even if accurate as far as they go, possess little broad or general value. Indeed, their chief significance probably lies in the emphasis they give the view that a piece of investigation of this nature, to have any value whatever, must be detailed to the highest degree, and must be founded on the possession of minute information much more varied and extended than such as was available in the present instance.

But, whatever the interpretation of the general facts may be, the facts themselves remain; and these, with similar facts that might be drawn from a similar study of any other of this country's varied industries, point to no small degree

[1] Some machinery is, of course, taxed as realty (see note on page 635); but necessary additions from this source to values of lands and buildings would little affect the result

[2] In census terminology an "establishment" consists of a mill or mills in a given place, owned by a single individual, firm, or corporation

of discrimination in tax exactions between manufacturing concerns situated in different States. Unless we accept the rather naïve theory of a certain paper manufacturer[1] with whom the writer recently had an interview, it is hard to avoid the wish that some method of departure from the property tax might be devised by which manufacturing concerns could be taxed with some reference to relative earnings rather than merely with reference to their relative accumulations of bricks and mortar and steel. To be sure, speedily to bring about such a change in any efficient degree would necessitate an extension of administrative centralization such as, under present conditions in this country, we should be loth to contemplate. For the present a multitude of varied and discriminating exactions must, therefore, be regarded as an unavoidable accompaniment of our decentralized system of governmental administration. Under the circumstances the most available provisory expedient would seem to be that of an increasingly careful investigation of existing tax conditions. And it would further seem that this can best be done at the hands of specially and permanently constituted State agencies. On the basis of resulting knowledge of actual conditions within limited areas and of generalizations drawn from such information, gradual improvement in the direction of the standardizing and equalizing of tax requirements might be expected. Michigan, Wisconsin, and Minnesota are pioneers among the States in this movement; and the results of their activities, despite early errors, are typical of what might be done more widely in the acquiring and sifting of significant facts, without which there can be neither intelligent legislation nor wisely efficient administration.

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[1] This official of an important concern advanced the view that property taxes are preferable to taxes based on earnings because of their tendency to discriminate against the less efficient in favor of the more efficient plants, this contributing to the survival of the fittest establishments.